## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003920 Address: 333 Burma Road **Date Inspected:** 15-Sep-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Hua Jie and Huang Wen PangCWI Present: Yes No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A

N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No

Yes No **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** and **SAS** Tower Fabrication

## **Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

# Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on plate splice butt joint of floor beam sub-assembly FB013-024-002. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

This QA randomly observed ZPMC welder Zhang Qingquan ID #044714 and Chen Chuanzong ID #044824, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2132-3 to weld CJP fill pass on flange splice butt joint on FB003-099-002 and FB003-099-105 respectively. The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and weld parameters.

This QA Inspector randomly observed ZPMC welder Hong Shuili ID #044815 utilizing the FCAW Process in the 2G (Hor. Groove) Position with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic to weld fill pass on groove of web plate to flange tee joint on floor beam FB001-006-045. The QA N/A

# WELDING INSPECTION REPORT

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Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and weld parameters.

FCAW(2F/3F) fillet welding on stiffener to web plate/flange of floor beam FB003-098 weld joints 086, 085, 094, 093, 101 and 102. ZPMC welder Zhang Wei ID # 066399 was noted performing the task. Fit-up/tack welding of flange to web plate on floor beam FB003-094-002 was also observed using TL508 electrode.

## Bay 8: Tower Diaphragm

The QA Inspector randomly observed ZPMC Welders ID #067081, ID #045246, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 4G (Overhead Groove) to tack weld 40mm thick web plate to top tower double diaphragm NSD1-SA334B/B weld joints 9 and 10. The QA Inspector randomly observed ZPMC CWI Liu Hua Jie monitoring preheat and weld parameters.

FCAW(1G) tack welding on 38mm thick tower diaphragm plate splice butt joint ESD1-SA416-4 using 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H wire electrode this QA observed.

# **Summary of Conversations:**

No significant conversation ocurred today.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer